L Number	Hits	Search Text	DB	Time stamp
-	157	257/144	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/02 11:36
-	247	257/152	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/08 10:54
-	172	257/163	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/08 10:54
-	117	257/164	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/08 10:54
-	76	257/165	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/08 10:54
-	616	(257/110 or 257/144 or 257/152 or 257/163 or 257/164 or 257/165) and @pd<19980717	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 12:46
-	4	((257/110 or 257/144 or 257/152 or 257/163 or 257/164 or 257/165) and @pd<19980717) and (selenium or sulfur)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/08 12:10
-	616	(257/110 or 257/144 or 257/152 or 257/163 or 257/164 or 257/165) and @pd<19980717	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/08 13:49
-	576	(257/110 or 257/144 or 257/152 or 257/163 or 257/164 or 257/165) and @pd<19970717	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 13:51
-	169	((257/110 or 257/144 or 257/152 or 257/163 or 257/164 or 257/165) and @pd<19970717) and (stop$5 or buffer$3 or phosphor$2 or arsenic)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 14:34
-	5	stop$4 adj2 buffer and thyristor$1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 14:38
-	25	((257/110 or 257/144 or 257/152 or 257/163 or 257/164 or 257/165) and @pd<19970717) and (stop$5 or buffer$3) and (phosphor$2 or arsenic)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 15:04
-	5	energy adj level$1 near (phosphorus or arsenic or selenium or sulfur) near dop$4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 15:47

C:\APPS\east\workspaces\workspaces.09761040.wsp

-	1	ionization adj energy near (phosphorus or arsenic or selenium or sulfur) near dop$4	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 16:4.
-	292	(sulfur with selenium) and 257/$3.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/11 07:40
-	57	(sulfur with selenium) and 257 $3.ccls. and emitter$1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 16:40
-	89	(sulfur with selenium) and 257 $3.ccls. and band adj gap	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 16:50
-	14	((sulfur with selenium) and 257/$3.ccls. and emitter$1) and ((sulfur with selenium) and 257/$3.ccls. and band adj gap)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 18:54
-	4	(((sulfur with selenium) and 257/$3.ccls. and emitter$1) and ((sulfur with selenium) and 257/$3.ccls. and band adj gap)) and dopant and (buffer or stop$4)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/11 07:34
-	2	ionization adj energ$? with sulfur with (dopant or impurit$3 or foreign)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 17:07
-	37	dopant and (selenium or sulfur) and emitter and (buffer adj layer or stop$4 adj zone)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 17:57
-	0	(buffer adj layer or stop$4 adj zone) same dopant same (selenium or sulfur) same ionization adj energ$3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 18:0.
-	0	(buffer adj layer or stop$4 adj zone) same (selenium or sulfur) same ionization adj energ$3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 19:01
-	3	(dopant or impurit$3) same (selenium or sulfur) same ionization adj energ$3	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 19:0.
-	7	buffer adj layer with dopant with (sulfur or selenium)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 19:26
-	0	stop adj zone with dopant with (sulfur or selenium)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 19:26
-	7	((sulfur with selenium with dopant) and 257/$3.ccls. and emitter$1) and (257/$3.ccls. and band adj gap)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/10 18:56

-	44720	ionization energ$3 with sulfur with selenium	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/11 07:42
-	44672	ionization energ$3 with sulfur with selenium with dopant$1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/11 07:42
-	1	ionization adj energ$3 with sulfur with selenium with dopant$1	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/11 07:43
-	2	5574297.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/11 07:59
-	2	5359220.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/11 08:02
-	3	5528058.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/11 09:03
-	1686	dopant with phosphorus with type	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/11 09:04
-	1454	dopant with phosphorus with n adj2 type	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/11 09:07
-	205	dopant with phosphorus with n+	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/11 09:10
-	151	(dopant with phosphorus with n+) and @pd<19970717	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2001/06/11 09:11
-	738	257/110 or 257/144 or 257/152 or 257/163 or 257/164 or 257/165	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/26 19:02
-	1	(257/110 or 257/144 or 257/152 or 257/163 or 257/164 or 257/165) and ((stop adj zone near15 active) near15 (off-state or off adj state))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/26 19:39
-	1	(257/110 or 257/144 or 257/152 or 257/163 or 257/164 or 257/165) and ((stop$4 adj zone near15 active) near15 (off-state or off adj state))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/26 19:41
-	1	(257/110 or 257/144 or 257/152 or 257/163 or 257/164 or 257/165) and ((zone near15 active) near15 (off-state or off adj state))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/26 19:41

-	3	5528058.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 15:26
-	3	5357130.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 12:19
-	0	stop$4 adj zone same dopant same (ON-state or OFF-state or "on state" or "off state")	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 12:48
-	31	dopant near12 ionization adj energy	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 13:58
-	5	(igbt or mct).ti,ab. and ((dopant or impurity or impurities) near12 (indium or tellurium))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 13:14
-	9	semiconductor.ti,ab. and ((dopant or impurity or impurities) same (indium or tellurium) same ionization)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 14:21
-	0	(((sulfur or selenium) near12 "on-state voltage") same (dopant or impurit$3)) and semiconductor.ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 14:25
-	5	((sulfur or selenium) near12 ("on-state" or voltage) same (dopant or impurit$3)) and semiconductor.ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 14:27
-	0	(((sulfur or selenium) near12 (ionization adj (energy or potential)) near12 (impurit$3 or dop$3)) same ((on-state or on adj state) adj2 voltage)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 14:30
-	2	((sulfur or selenium) near12 (ionization adj (energy or potential)) near12 (impurit$3 or dop$3))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 14:46
-	0	((selenium or sulfur) near12 on-state adj voltage) and (thyristor or mct or igbt).ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 14:47
-	35	(selenium or sulfur) and (thyristor or mct or igbt).ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 14:47
-	2	((selenium or sulfur) same (dopant or impurit$3)) and (thyristor or mct or igbt).ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 14:49
-	40	((blocking or stop$4) adj2 (zone or layer) same emitter) and thyristor.ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 15:29

-	13	((blocking or stop$4) adj2 (zone or layer) same emitter) same voltage and thyristor.ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 15:09
-	0	(((blocking or stop$4) adj2 (zone or layer) same emitter) same voltage same on-state) and thyristor.ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 15:30
-	0	((blocking or stop$4) adj2 (zone or layer) same emitter) same voltage same "or.") and thyristor.ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 15:30
-	5	((blocking or stop$4) adj2 (zone or layer) same emitter) same voltage) and thyristor.ti,ab. and power	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 15:30
-	1	((blocking or stop$4) adj2 (zone or layer) same emitter) same voltage) and thyristor.ti,ab. and power and (dopant or impurit$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 15:46
-	3	5710445.pn.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 15:54
-	1	((selenium or sulfur) near12 (dopant or impurity)) and thyristor.ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 15:56
-	0	((selenium or sulfur) near12 ionization adj (potential or energy)) and thyristor	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 15:57
-	0	((selenium or sulfur) near12 ionization adj (potential or energy)) and barrier adj layer	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 15:58
-	20	(selenium or sulfur) near12 ionization adj (potential or energy)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 15:58
-	2	(selenium or sulfur) near12 ionization adj (potential or energy) and semiconductor.ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:02
-	1	(selenium or sulfur) near12 ionization adj (potential or energy) and (igbt or thyristor or mosfet) and semiconductor.ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:04
-	2	(selenium or sulfur) near12 ionization adj (potential or energy) and (igbt or thyristor or mosfet or semiconductor).ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:05
-	27	((selenium or sulfur) near12 (barrier adj layer)) and (igbt or thyristor or mosfet or semiconductor).ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:06

-	9	((selenium or sulfur) near5 (barrier adj layer)) and (igbt or thyristor or mosfet or semiconductor).ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:11
-	0	((selenium or sulfur) near5 (barrier adj layer)) and (igbt or mosfet or semiconductor).ti,ab. and thyristor.ti.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:07
-	0	((selenium or sulfur) near5 (barrier adj layer)) and thyristor.ti.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:08
-	0	((selenium or sulfur) near5 (barrier adj layer)) and thyristor.ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:09
-	0	((selenium or sulfur) near5 (barrier adj layer)) and (mct or thyristor or igbt).ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:09
-	1	((selenium or sulfur) near5 (dopant or impurity) near5 (barrier adj layer))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:13
-	0	((selenium or sulfur) near5 (dopant or impurity) near5 (barrier adj layer)) and silicon adj substrate	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:13
-	71	((selenium or sulfur) near5 (dopant or impurity)) and silicon adj substrate	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:14
-	5	((selenium or sulfur) near5 (dopant or impurity)) and ionization adj (energy or potential) and silicon adj substrate	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:21
-	15	(low-noise or low adj noise) adj2 semiconductor and power adj2 semiconductor	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:14
-	33	((low-noise or low adj noise) near5 power) near5 semiconductor).ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:24
-	0	((low-noise or low adj noise) near5 power) near5 semiconductor).ti,ab. and thyristor	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:24
-	3	((low-noise or low adj noise) near5 power) near5 semiconductor adj device).ti,ab.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 16:30
-	25	((low-noise or low adj noise) near5 power).ti,ab. and 257/$6.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/01/27 17:05

–	2	((low-noise or low adj noise) near5 power).ti,ab. and 257/$6.ccls. and (thyristor or igbt or insulated gate adj bipolar adj) transistor or mct)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/02 13:2~
–	2	jp-021055790-$.did.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/11/27 17:0~
–	458	stop adj zone	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/01 16:3~
–	2	(stop adj zone) and (((257/110) or (257/144) or (257/152) or (257/163) or (257/164) or (257/165)).CCLS.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/01 16:36
–	586	(((257/110) or (257/144) or (257/152) or (257/163) or (257/164) or (257/165)).CCLS.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/01 20:3~
–	60	buffer adj (layer or film) and (((257/110) or (257/144) or (257/152) or (257/163) or (257/164) or (257/165)).CCLS.)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/01 17:1~
–	29	(buffer adj (layer or film) and (((257/110) or (257/144) or (257/152) or (257/163) or (257/164) or (257/165)).CCLS.) and (sulfur or s or selenium or se)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/01 17:20
–	0	((buffer adj) (layer or film) and (((257/110) or (257/144) or (257/152) or (257/163) or (257/164) or (257/165)).CCLS.) and (sulfur or s or selenium or se) and (buffer near12 (selenium or se or s or sulfur))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/01 17:21
–	3	(buffer adj (layer or film) and ((257/110) or (257/144) or (257/152) or (257/163) or (257/164) or (257/165)).CCLS.) and (sulfur or s or selenium or se) and (buffer same (selenium or se or s or sulfur))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/01 17:2~
–	0	((buffer adj (layer or film) and ((257/110) or (257/144) or (257/152) or (257/163) or (257/164) or (257/165)).CCLS.) and (sulfur or s or selenium or se) and (buffer same (selenium or se or sulfur))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/01 17:2~
–	0	((buffer adj (layer or film) and ((257/110) or (257/144) or (257/152) or (257/163) or (257/164) or (257/165)).CCLS.) and (sulfur or s or selenium or se) and ((buffer near15 (dop3 or impurit3*) same ioniz5)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/01 17:27
–	0	(buffer adj (layer or film) and ((257/110) or (257/144) or (257/152) or (257/163) or (257/164) or (257/165)).CCLS.) and (sulfur or s or selenium or se) and ((buffer near15 (selenium or sulfur)))	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/01 17:28

77 (US-4717340-$ or US-4760431-$ or
US-RE32793-$ or US-4851999-$ or
US-4914496-$ or US-4963972-$ or
US-5065211-$ or US-5069704-$ or
US-5081016-$ or US-5401949-$ or
US-5410445-$ or US-5444071-$ or
US-5444291-$ or US-5461241-$ or
US-5417224-$ or US-5498709-$ or
US-5169444-$ or US-5515416-$ or
US-5529318-$ or US-5543633-$ or
US-5549431-$ or US-5610415-$ or
US-5637999-$ or US-5644150-$ or
US-5645198-$ or US-5601762-$).did. or
(US-5124772-$ or US-5202750-$ or
US-5219411-$ or US-5243003-$ or
US-5293054-$ or US-5304921-$ or
US-5306430-$ or US-5336307-$ or
US-5365477-$ or US-5371385-$ or
US-5379013-$ or US-5661314-$ or
US-5673044-$ or US-5684306-$ or
US-5705835-$ or US-5710445-$ or
US-5719413-$ or US-5793066-$ or
US-5796124-$ or US-5844058-$ or
US-5904149-$ or US-5905255-$ or
US-5936267-$ or US-6020623-$ or
US-6154728-$ or US-RE36919-$ or
US-6107649-$).did. or (US-6111278-$ or
US-6111290-$ or US-6169294-$ or
US-6198115-$ or US-6218217-$ or
US-6271545-$ or US-6278140-$ or
US-6213485-$ or US-4032968-$ or
US-4053921-$ or US-4062032-$ or
US-3427782-$ or US-3470036-$).did. or
(US-20010005024-$ or
US-20020024056-$).did. or (JP-06061479-$
or JP-06151825-$ or JP-01270352-$ or
JP-02296370-$ or JP-03070176-$ or
JP-03116874-$ or JP-04210775-$ or
JP-04317375-$ or JP-04317875-$).did.

USPAT;   2002/05/02
US-PGPUB;   11:40
JPO

Search History   5/2/02 4:41:06 PM   Page 8

C:\APPS\east\workspaces\workspaces\09761240.wsp

2   ((US-4717940-$ or US-4760431-$ or
US-RE32784-$ or US-4851???-$ or
US-4914496-$ or US-4963?72-$ or
US-?065211-$ or US-5068??14-$ or
US-5391025-$ or US-5401?4?-$ or
US-541?4?-3-$ or US-?444.?1-$ or
US-?444???-$ or US-5461?42-$ or
US-54???064-$ or US-??????4-$ or
US-549????4-$ or US-??25?14-$ or
US-5520?0??-$ or US-??43?1?-$ or
US-5563?431-$ or US-??16415-$ or
US-5637???-$ or US-?5444151-$ or
US-?65??85-$ or US-?591?6?-$).did. or
(US-6154772-$ or US-6002750-$ or
US-??1?44?-$ or US-??45???-$ or
US-5???3054-$ or US-?404?21-$ or
US-5502??0-$ or US-?336?07-$ or
US-5365?477-$ or US-5?71?85-$ or
US-537??0?3-$ or US-5?61?14-$ or
US-5670???-$ or US-?684306-$ or
US-5705?8??-$ or US-?710446-$ or
US-5719414?-$ or US-?793?66-$ or
US-5794?04-$ or US-5944?58-$ or
US-549414?-$ or US-5?23??5-$ or
US-5936?07-$ or US-?000?03-$ or
US-6054??0?-$ or US-RE36818-$ or
US-6107?44-$).did. or (US-6111278-$ or
US-6111?40-$ or US-6169?99-$ or
US-6199119-$ or US-6?19?17-$ or
US-6271545-$ or US-6?78140-$ or
US-631?44?-$ or US-40?2?5?-$ or
US-40?3??1-$ or US-406?9??-$ or
US-?337?4?-$ or US-?470??6-$).did. or
(US-2001?005024-$ or
US-20020?24056-$).did. or (JP-06061479-$
or JP-04?51825-$ or JP-01?70352-$ or
JP-02?9???0-$ or JP-03070176-$ or
JP-?311??74-$ or JP-04?10775-$ or
JP-?451??75-$ or JP-0435?875-$).did.) and
(block$? or buffer or s?op$4) adj (region
or film or layer) and ionization

USPAT;
US-PGPUB;
EPO; JPO;
DERWENT;
IBM_TDB

2002/05/01
20:34

1 ((US-4717940-$ or US-4760431-$ or
   US-RE32784-$ or US-4851899-$ or
   US-4914494-$ or US-4961972-$ or
   US-5165211-$ or US-5064704-$ or
   US-5181015-$ or US-5401055-$ or
   US-5429440-$ or US-5444271-$ or
   US-5444450-$ or US-5441742-$ or
   US-5477204-$ or US-5484709-$ or
   US-5498444-$ or US-5521716-$ or
   US-5528059-$ or US-5543430-$ or
   US-5560441-$ or US-5561415-$ or
   US-5567899-$ or US-5584150-$ or
   US-5589195-$ or US-5091766-$).did. or
   (US-5104772-$ or US-5210750-$ or
   US-5210450-$ or US-5144002-$ or
   US-5293354-$ or US-5304521-$ or
   US-5306766-$ or US-5336907-$ or
   US-5366477-$ or US-5371485-$ or
   US-5378903-$ or US-5461314-$ or
   US-5478766-$ or US-5484206-$ or
   US-5705825-$ or US-5713446-$ or
   US-5719413-$ or US-5792066-$ or
   US-5796124-$ or US-5844258-$ or
   US-5894149-$ or US-5923005-$ or
   US-6036247-$ or US-6029423-$ or
   US-6054729-$ or US-RE36419-$ or
   US-6107649-$).did. or (US-6111278-$ or
   US-6111296-$ or US-6169299-$ or
   US-6199115-$ or US-6214017-$ or
   US-6271545-$ or US-6278149-$ or
   US-6413485-$ or US-4051969-$ or
   US-4763901-$ or US-4062032-$ or
   US-3337782-$ or US-3470036-$).did. or
   (US-23010001024-$ or
   US-20020024056-$).did. or (JP-06061479-$
   or JP-06151325-$ or JP-01270362-$ or
   JP-02246270-$ or JP-03070176-$ or
   JP-03116574-$ or JP-04240775-$ or
   JP-04317375-$ or JP-04357975-$).did.) and
   (block$3 or buffer or stop$4) adj (region
   or film or layer) and (energy adj level
   or band adj2 gap)

USPAT;   2002/05/01
US-PGPUB;   20:43
EPO; JPO;
DERWENT;
IBM_TDB

0 ((US-4717940-$ or US-4760431-$ or
US-RE32784-$ or US-4851899-$ or
US-4914496-$ or US-4963972-$ or
US-5066211-$ or US-5168704-$ or
US-5491025-$ or US-5401495-$ or
US-5429962-$ or US-5444271-$ or
US-5444272-$ or US-5451742-$ or
US-5477264-$ or US-5486703-$ or
US-5498854-$ or US-5525416-$ or
US-5529769-$ or US-5543633-$ or
US-5569941-$ or US-5616415-$ or
US-5637484-$ or US-5644150-$ or
US-5659185-$ or US-5091766-$).did. or
(US-5124772-$ or US-5102790-$ or
US-5210432-$ or US-5245002-$ or
US-5293054-$ or US-5304821-$ or
US-5306430-$ or US-5336607-$ or
US-5365477-$ or US-5371485-$ or
US-5378903-$ or US-5661314-$ or
US-5679066-$ or US-5684306-$ or
US-5705835-$ or US-5710445-$ or
US-5719413-$ or US-5793066-$ or
US-5736124-$ or US-5444159-$ or
US-5844143-$ or US-5703055-$ or
US-5936267-$ or US-6100423-$ or
US-6054728-$ or US-RE36919-$ or
US-6107643-$).did. or (US-6111278-$ or
US-6111290-$ or US-6169099-$ or
US-6198115-$ or US-6218217-$ or
US-6271545-$ or US-6278140-$ or
US-6313499-$ or US-4032758-$ or
US-4053921-$ or US-4162432-$ or
US-3837782-$ or US-3470056-$).did. or
(US-20010005024-$ or
US-20120024056-$).did. or (JP-06061479-$
or JP-06151325-$ or JP-01270352-$ or
JP-02296370-$ or JP-03070176-$ or
JP-03116374-$ or JP-04240775-$ or
JP-04517375-$ or JP-04357875-$).did.) and
(block$3 or buffer or stop$4) adj (region
or film or layer) near10 (indium or
tellurium or selenium of sulfur or in or
se)

USPAT;   2002/05/01
US-PGPUB;   20:45
EPO; JPO;
DERWENT;
IBM_TDB

Search History   5/2/02 4:41:06 PM   Page 11

C:\APPS\east\workspaces\workspaces\09761240.wsp

2 ((US-4717940-$ or US-4760431 $ or
US-RE32784-$ or US-4851899-$ or
US-4914496-$ or US-4949072-$ or
US-5065211-$ or US-5069701-$ or
US-5091025-$ or US-5101495-$ or
US-5129903-$ or US-5144371-$ or
US-5144272-$ or US-5161211-$ or
US-5177066-$ or US-5486700-$ or
US-5498994-$ or US-5525816-$ or
US-5528059-$ or US-5545649-$ or
US-5569941-$ or US-5610415-$ or
US-5637899-$ or US-5644150-$ or
US-5659195-$ or US-5691756-$).did. or
(US-5134772-$ or US-5000710-$ or
US-5210413-$ or US-5246093-$ or
US-5293059-$ or US-5304821-$ or
US-5318938-$ or US-5338007-$ or
US-5465477-$ or US-5571345-$ or
US-5479305-$ or US-5661319-$ or
US-5679062-$ or US-5684304-$ or
US-5705835-$ or US-5710445-$ or
US-5719413-$ or US-5793066-$ or
US-5736134-$ or US-5844058-$ or
US-5893113-$ or US-5903055-$ or
US-5936267-$ or US-6020623-$ or
US-6054728-$ or US-RE36819-$ or
US-6107649-$).did. or (US-6111278-$ or
US-6111290-$ or US-6169290-$ or
US-6198115-$ or US-6218217-$ or
US-6271545-$ or US-6278140-$ or
US-6313485-$ or US-4042958-$ or
US-4053431-$ or US-4060032-$ or
US-4337792-$ or US-3470036-$).did. or
(US-20010005024-$ or
US-20020024056-$).did. or (JP-06061479-$
or JP-06181825-$ or JP-01270352-$ or
JP-02294370-$ or JP-03070176-$ or
JP-05116874-$ or JP-04240775-$ or
JP-04317575-$ or JP-04357875-$).did.) and
(block$3 or buffer or stop$4) adj (region
or film or layer) and (indium or
tellurium or selenium or sulfur or in or
se)

2   ((US-4717940-$ or US-4760431-$ or
US-RE32791-$ or US-4851819-$ or
US-4914496-$ or US-4963972-$ or
US-5046011-$ or US-5048871-$ or
US-5059100-$ or US-5401445-$ or
US-5412041-$ or US-5444471-$ or
US-5444272-$ or US-5451442-$ or
US-5477064-$ or US-5486739-$ or
US-5494445-$ or US-5525516-$ or
US-5529854-$ or US-5543436-$ or
US-5569341-$ or US-5610413-$ or
US-5637479-$ or US-5644160-$ or
US-5646196-$ or US-5691736-$).did. or
(US-5694772-$ or US-5706780-$ or
US-5714430-$ or US-5748230-$ or
US-5793054-$ or US-5304801-$ or
US-5306920-$ or US-5336907-$ or
US-5366477-$ or US-5371396-$ or
US-5379003-$ or US-5661414-$ or
US-5679046-$ or US-5684306-$ or
US-5705835-$ or US-5710445-$ or
US-5712413-$ or US-5793066-$ or
US-5796121-$ or US-5844058-$ or
US-5894145-$ or US-5925066-$ or
US-5936267-$ or US-6020025-$ or
US-6064729-$ or US-RE36268-$ or
US-6107643-$).did. or (US-6111278-$ or
US-6111240-$ or US-6169299-$ or
US-6199115-$ or US-6219017-$ or
US-6271545-$ or US-6278146-$ or
US-6313486-$ or US-4038688-$ or
US-4063821-$ or US-4062073-$ or
US-3337793-$ or US-3470026-$).did. or
(US-20010005024-$ or
US-20020024056-$).did. or (JP-06061479-$
or JP-06191825-$ or JP-9270352-$ or
JP-02296370-$ or JP-0307176-$ or
JP-03116974-$ or JP-0424775-$ or
JP-04417873-$ or JP-04357875-$).did.) and
 block$3 or buffer or stop$4) adj (region
or film or layer) and (indium or
tellurium or selenium of sulfur or in or
se or te)

USPAT;   2002/05/01
US-PGPUB;   20:50
EPO; JPO;
DERWENT;
IBM_TDB

0 ((US-4717940-$ or US-4760431-$ or
US-RE32744-$ or US-4851889-$ or
US-4914449-$ or US-4963972-$ or
US-5065011-$ or US-5048704-$ or
US-5081113-$ or US-5401481-$ or
US-5429143-$ or US-5444413-$ or
US-5444271-$ or US-5511141-$ or
US-5477144-$ or US-5496701-$ or
US-5409994-$ or US-5425412-$ or
US-5528545-$ or US-5514543-$ or
US-5569441-$ or US-5419411-$ or
US-5457449-$ or US-5444150-$ or
US-5469191-$ or US-5491761-$).did. or
(US-5121772-$ or US-5202750-$ or
US-5219471-$ or US-5245202-$ or
US-5293054-$ or US-5304821-$ or
US-5306320-$ or US-5316407-$ or
US-5365477-$ or US-5371381-$ or
US-5379403-$ or US-5661314-$ or
US-5679344-$ or US-5694404-$ or
US-5705845-$ or US-5710445-$ or
US-5719413-$ or US-5703366-$ or
US-5736124-$ or US-5944059-$ or
US-5894117-$ or US-5403451-$ or
US-5936247-$ or US-6100423-$ or
US-6054724-$ or US-RE36919-$ or
US-6107649-$).did. or (US-6111278-$ or
US-6111990-$ or US-6169299-$ or
US-6199115-$ or US-6219117-$ or
US-6271545-$ or US-6278140-$ or
US-6313485-$ or US-4132759-$ or
US-4053951-$ or US-4042912-$ or
US-4337782-$ or US-3470066-$).did. or
(US-20010005024-$ or
US-20020024056-$).did. or (JP-06061479-$
or JP-04151825-$ or JP-01270352-$ or
JP-02194770-$ or JP-05073176-$ or
JP-03114974-$ or JP-04041475-$ or
JP-04317075-$ or JP-04357075-$).did.) and
(block$5 or buffer or stop$4) adj (region
or film or layer) and (band near2 gap)

-	1	((US-4717440-$ or US-4760431-$ or US-RE32743-$ or US-4851849-$ or US-4914494-$ or US-4962972-$ or US-5065211-$ or US-5069714-$ or US-5039105-$ or US-5401945-$ or US-5413745-$ or US-5144001-$ or US-5444270-$ or US-5461772-$ or US-5477061-$ or US-5490210-$ or US-5494494-$ or US-5503414-$ or US-5529159-$ or US-5542409-$ or US-5564941-$ or US-5610415-$ or US-5637884-$ or US-5644110-$ or US-5653769-$ or US-5691766-$).did. or (US-5123772-$ or US-5121750-$ or US-5210432-$ or US-5245099-$ or US-5304064-$ or US-5304901-$ or US-5304430-$ or US-5326007-$ or US-5369627-$ or US-5371385-$ or US-5373903-$ or US-5401814-$ or US-5379902-$ or US-5404300-$ or US-5705835-$ or US-5710445-$ or US-5719413-$ or US-5742066-$ or US-5736124-$ or US-5744858-$ or US-5894189-$ or US-5923055-$ or US-5934047-$ or US-6002603-$ or US-6054708-$ or US-RE36091-$ or US-6107644-$).did. or (US-6111278-$ or US-6111290-$ or US-6160944-$ or US-6198115-$ or US-6018017-$ or US-6271649-$ or US-6278140-$ or US-6313495-$ or US-4430358-$ or US-4063921-$ or US-4060030-$ or US-4337780-$ or US-4470056-$).did. or (US-2001005024-$ or US-2002002405(-$).did. or (JP-06061479-$ or JP-06151825-$ or JP-01270352-$ or JP-02245370-$ or JP-03044176-$ or JP-03116874-$ or JP-04041775-$ or JP-04317375-$ or JP-04347873-$).did.) and (block$3 or buffer or stop$4) adj (region or film or layer) and energy adj level	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/01 21:51
-	457	foreign adj atom	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/02 09:36
-	58	foreign adj atom and 2-1/$6.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/02 09:37
-	3447	stop$4 adj (zone or region or layer or film) and 257/$6.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/02 09:40
-	2240	(stop or stopping) adj (zone or region or layer or film) and 257/$6.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/02 09:41
-	30	(stop or stopping) adj zone and 257/$6.ccls.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/02 11:37
-	8	(stop or stopping) adj zone and 257/$6.ccls. and thyristor	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/02 09:44

C:\APPS\east\workspaces\workspaces\09761240.wsp

77 (US-5661314-$ or US-5679966-$ or
US-5784306-$ or US-5705831-$ or
US-5710445-$ or US-5719411-$ or
US-5791066-$ or US-5794121-$ or
US-5844268-$ or US-5839414-$ or
US-5421011-$ or US-5891267-$ or
US-6021623-$ or US-6064728-$ or
US-RE36819-$ or US-6107644-$ or
US-6111278-$ or US-6111290-$ or
US-6149298-$ or US-6158911-$ or
US-6118217-$ or US-6271848-$ or
US-6279140-$ or US-6313485-$ or
US-5444271-$ or US-5444272-$).did. or
(US-5548689-$ or US-5560911-$ or
US-5613916-$ or US-5461243-$ or
US-5473064-$ or US-5486701-$ or
US-5544894-$ or US-5525816-$ or
US-5524058-$ or US-5278803-$ or
US-5371386-$ or US-5365477-$ or
US-5617989-$ or US-5644150-$ or
US-5656186-$ or US-5401585-$ or
US-5346907-$ or US-5381009-$ or
US-5423953-$ or US-5304821-$ or
US-5192063-$ or US-5248300-$ or
US-5010432-$ or US-5202750-$ or
US-5104772-$ or US-5091764-$ or
US-5063704-$).did. or (US-5065211-$ or
US-4963972-$ or US-4914494-$ or
US-4951889-$ or US-RE32794-$ or
US-4760431-$ or US-4717954-$ or
US-4062032-$ or US-4065721-$ or
US-4032967-$ or US-3470038-$ or
US-3337780-$ or US-5306930-$).did. or
(US-20010005024-$ or
US-20020024056-$).did. or (JP-06151825-$
or JP-06061179-$ or JP-04357875-$ or
JP-04317375-$ or JP-04243775-$ or
JP-03316874-$ or JP-03070176-$ or
JP-02296370-$ or JP-01270352-$).did.

USPAT;   2002/05/02
US-PGPUB;   11:39
JPO

77   (US-5661314-$ or US-5673966-$ or
     US-5684306-$ or US-5705935-$ or
     US-5710443-$ or US-5719413-$ or
     US-5793066-$ or US-5796124-$ or
     US-5813254-$ or US-5834149-$ or
     US-5920404-$ or US-5936267-$ or
     US-6001082-$ or US-6014708-$ or
     US-6071914-$ or US-6107647-$ or
     US-6112127-$ or US-6111090-$ or
     US-6142027-$ or US-6148115-$ or
     US-6219217-$ or US-6271545-$ or
     US-6279140-$ or US-6413485-$ or
     US-5444271-$ or US-5444272-$).did. or
     (US-5543629-$ or US-5563941-$ or
     US-5611415-$ or US-5661343-$ or
     US-5477054-$ or US-5486709-$ or
     US-5493844-$ or US-5525314-$ or
     US-5525058-$ or US-5578403-$ or
     US-5571395-$ or US-5565477-$ or
     US-5517888-$ or US-5644150-$ or
     US-5659196-$ or US-5401786-$ or
     US-5324907-$ or US-5381025-$ or
     US-5427953-$ or US-5204421-$ or
     US-5293054-$ or US-5245302-$ or
     US-5013432-$ or US-5202750-$ or
     US-5121772-$ or US-5091766-$ or
     US-5048704-$).did. or (US-5065211-$ or
     US-4943972-$ or US-4914496-$ or
     US-4851999-$ or US-RE32794-$ or
     US-4760431-$ or US-4717940-$ or
     US-4082030-$ or US-4063221-$ or
     US-4022958-$ or US-3470036-$ or
     US-5357730-$ or US-5406930-$).did. or
     (US-20010005024-$ or
     US-20010024056-$).did. or (JP-06151825-$
     or JP-06061479-$ or JP-04357875-$ or
     JP-04317375-$ or JP-04040775-$ or
     JP-05116874-$ or JP-03070175-$ or
     JP-02246370-$ or JP-01270352-$).did.

     USPAT;   2002/05/02
     US-PGPUB;   11:39
     JPO

19 ((US-5661314-$ or US-5679966-$ or
    US-5684302-$ or US-5709835-$ or
    US-5719413-$ or US-5719413-$ or
    US-5793062-$ or US-5734124-$ or
    US-5844253-$ or US-5864141-$ or
    US-5720153-$ or US-5946067-$ or
    US-5029621-$ or US-6054724-$ or
    US-5874814-$ or US-6177064-$ or
    US-6111074-$ or US-6111184-$ or
    US-6150434-$ or US-6179911-$ or
    US-6221411-$ or US-6271144-$ or
    US-6279140-$ or US-6315485-$ or
    US-6444271-$ or US-6444272-$).did. or
    (US-5615629-$ or US-5649941-$ or
    US-5617415-$ or US-5461243-$ or
    US-5473064-$ or US-5496703-$ or
    US-5494884-$ or US-5525916-$ or
    US-5529068-$ or US-5378303-$ or
    US-5371385-$ or US-5365477-$ or
    US-5627998-$ or US-5644150-$ or
    US-5665195-$ or US-5411399-$ or
    US-5337907-$ or US-5341025-$ or
    US-5402953-$ or US-5304921-$ or
    US-5293064-$ or US-5245332-$ or
    US-5214130-$ or US-5202750-$ or
    US-5104772-$ or US-5091768-$ or
    US-5068704-$).did. or (US-5065211-$ or
    US-4963972-$ or US-4414616-$ or
    US-4451890-$ or US-RE30794-$ or
    US-4760431-$ or US-4717940-$ or
    US-4680432-$ or US-4063421-$ or
    US-4020958-$ or US-3470036-$ or
    US-3327782-$ or US-5308426-$).did. or
    (US-20010010024-$ or
    US-20020004056-$).did. or (JP-06151825-$
    or JP-06021479-$ or JP-04357875-$ or
    JP-04317375-$ or JP-04240775-$ or
    JP-03116874-$ or JP-03070174-$ or
    JP-02046370-$ or JP-01270352-$).did.) and
    ((dop$3 or impurit$3 or donor or
    acceptor) near12 (carbon or c or titanium
    or ti or se or selenium or or or chromium
    or ta or tantalum or cs or cesium or ba
    or barium or sulfur or s or mangenese or
    mn or pt or platinum or au or gold or
    silver or ag))   USPAT;   2002/05/02
                                                    US-PGPUB;   13:24
                                                    JPO

3   ("3453243").PN.   USPAT;   2002/05/02
                                                    US-PGPUB;   13:05
                                                    EPO; JPO;
                                                    DERWENT;
                                                    IBM_TDB

0 ((US-5661314-$ or US-5673966-$ or
US-5684306-$ or US-5705815-$ or
US-5710445-$ or US-5717943-$ or
US-5793066-$ or US-5734174-$ or
US-5844025-$ or US-5844140-$ or
US-5903055-$ or US-5934247-$ or
US-6020424-$ or US-6034707-$ or
US-RE36919-$ or US-6107547-$ or
US-6111274-$ or US-6111240-$ or
US-6149290-$ or US-6194111-$ or
US-6219217-$ or US-6227543-$ or
US-6279140-$ or US-6113495-$ or
US-6444271-$ or US-6444272-$).did. or
(US-5543639-$ or US-5560941-$ or
US-5610415-$ or US-5461041-$ or
US-5477064-$ or US-5484704-$ or
US-5409484-$ or US-5525914-$ or
US-5529058-$ or US-5378905-$ or
US-5371085-$ or US-5366417-$ or
US-5617498-$ or US-5644180-$ or
US-5653195-$ or US-5401985-$ or
US-5336407-$ or US-5391025-$ or
US-5423453-$ or US-5354921-$ or
US-5293054-$ or US-5245203-$ or
US-5210432-$ or US-5200750-$ or
US-5124772-$ or US-5091766-$ or
US-5069704-$).did. or (US-5065211-$ or
US-4963972-$ or US-4914106-$ or
US-4851989-$ or US-RE32741-$ or
US-4760431-$ or US-4717940-$ or
US-4062032-$ or US-4053921-$ or
US-4022958-$ or US-3470036-$ or
US-3337781-$ or US-5306300-$).did. or
(US-20010008024-$ or
US-20020024056-$).did. or (JP-06151825-$
or JP-06061479-$ or JP-01357875-$ or
JP-04517175-$ or JP-04740775-$ or
JP-03118874-$ or JP-03073176-$ or
JP-02296370-$ or JP-01271352-$).did.) and
(((barium or cesium) near12 (dop$3 or
impurit$3)) near12 thyristor)

	3	((US-5661314-$ or US-5679966-$ or US-5684306-$ or US-5705935-$ or US-5710446-$ or US-5719413-$ or US-5743066-$ or US-5796124-$ or US-5844259-$ or US-5944140-$ or US-5403064-$ or US-5946267-$ or US-6000624-$ or US-6054473-$ or US-RE36919-$ or US-6107649-$ or US-6111679-$ or US-6111290-$ or US-6109294-$ or US-6108115-$ or US-6019017-$ or US-6071546-$ or US-6078140-$ or US-6313489-$ or US-5444271-$ or US-5444272-$).did. or (US-5543669-$ or US-5569941-$ or US-5610415-$ or US-5461240-$ or US-5477068-$ or US-5446709-$ or US-5498994-$ or US-5525816-$ or US-5528058-$ or US-5378909-$ or US-5371399-$ or US-5365477-$ or US-5637898-$ or US-5644150-$ or US-5659195-$ or US-5401988-$ or US-5336907-$ or US-5341029-$ or US-5420453-$ or US-5304821-$ or US-5293064-$ or US-5245030-$ or US-5210433-$ or US-5292730-$ or US-5104772-$ or US-5091765-$ or US-5068704-$).did. or (US-5065211-$ or US-4963972-$ or US-4914496-$ or US-4951099-$ or US-RE32784-$ or US-4760431-$ or US-4717449-$ or US-4047039-$ or US-4063221-$ or US-4040059-$ or US-3470046-$ or US-3427792-$ or US-5306930-$).did. or (US-20010005024-$ or US-20020024056-$).did. or (JP-06151825-$ or JP-06061479-$ or JP-01357875-$ or JP-04317375-$ or JP-04240775-$ or JP-04116874-$ or JP-03071176-$ or JP-02296370-$ or JP-01271352-$).did.) and (silicon adj substrate near12 thyristor)	USPAT; US-PGPUB; JPO	2002/05/02 14:32
	2	("6043112").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/02 14:33
	2	("6043112").PN.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/02 15:27
	1421	emitter and igbt and power and switching	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/02 15:28
	40	emitter adj region and igbt.ti,ab. and power adj2 device and switching	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/05/02 15:29